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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,301	03/25/2004	Yu Kitahara	25-272	5488

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ARNOLD INTERNATIONAL
P. O. BOX 129
GREAT FALLS, VA 22066-0129

EXAMINER

TRAN, THANG V

ART UNIT	PAPER NUMBER
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2627

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/808,301	KITAHARA ET AL.	
	Examiner	Art Unit	
	Thang V. Tran	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 5, 7, 10, 12, 14, 16, 18 and 20 is/are rejected.
- 7) ☒ Claim(s) 2, 4, 6, 8, 9, 11, 13, 15, 17 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3, 5, 7, 10, 12, 14, 16, 18 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Sakamoto (US 6,807,139)

Regarding claim 1, Sakamoto, according to Figs. 1-4, discloses an objective lens (see Fig. 2(a) or 2(d) as example) for different optical recording media which, for a selected first optical recording medium (200), focuses at a first numerical aperture (NA1) an incident light beam having a first wavelength (λ_A) onto a desired position of the first optical recording medium and, for a selected second optical recording medium (200'), focuses at a second numerical aperture (NA2) that is smaller than the first numerical aperture, an incident light beam having a second wavelength (λ_B) onto a desired position of the second optical recording medium, said objective lens comprising: at least one surface (inner area) that is at least partially defined using an equation for an aspheric surface wherein the surface height in the direction of the optical axis becomes discontinuous at a boundary line corresponding to the outer boundary of incident light of the second wavelength that is focused at the second numerical aperture onto a specified position of the second optical recording medium (see Figs. 1-2(d)); at least one surface (outer

Art Unit: 2627

area) that is at least partially a diffraction optical surface that is defined using one phase difference function, said diffraction optical surface constructed so that (a) the light flux of the first wavelength (λ_A) passing through a region of the diffraction optical surface corresponding to the first numerical aperture is focused onto a specified position of the first optical recording medium (see Fig. 4 where light beam focused on medium 200) by the refractive power of the objective lens and the light diffraction effect of the diffraction optical surface, (b) the light flux of the second wavelength (λ_B) passing through the region of the diffraction optical surface that is outside the region that corresponds to the second numerical aperture is not focused onto the specified position of the second optical recording medium by the refractive power of the objective lens and the light diffraction effect of the diffraction optical surface (see light beam with dash line that is not focused on medium 200'), and (c) the light flux of the second wavelength (λ_B) passing through the region of the diffraction optical surface corresponding to the second numerical aperture (NA2) is focused onto the specified position of the second recording medium by the refractive power of the objective lens and the light diffraction effect of the diffraction optical surface (see light beam with solid line focused on medium 200').

Regarding claim 3, see wavelengths disclosed in example 1, column 23.

Regarding claims 5 and 7, see column 21, lines 14-16, for limitations recited in these claims.

Regarding claims 10, 12, 14 and 16, see the range of wavelength N2 in column 17, lines 45-48.

Regarding claim 18 and 20 see Fig. 4 that includes the objective lens disclosed in Figs. 2a-2d.

Allowable Subject Matter

3. Claims 2, 4,6, 8, 9, 11, 13, 15, 17 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Claims 2, 4,6, 8, 9, 11, 13, 15, 17 and 19 are allowable over the prior art of record because the prior art of record, considered alone or in combination, fails to suggest or fairly teach an objective lens including all of limitations as recited in claim 2. Claims 4, 6, 8, 9, 11, 13, 15, 17 and 19 are allowable with their respective parent claim.

Cited References

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited references relate to an optical apparatus including an objective lens having at least two different number apertures for different type of media.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thang V. Tran whose telephone number is (571) 272-7595. The examiner can normally be reached on M-F 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nguyen Hoa can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

Art Unit: 2627

applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Thang V. Tran
Primary Examiner
Art Unit 2627